

Meeting Summary

US 29 North Corridor Advisory Committee Meeting #12

July 12, 2017, 6:30pm – 8:30pm

East County Regional Services Center

3300 Briggs Chaney Rd, Silver Spring, MD

Participants

CAC Members (<i>X for in attendance, blank for regrets</i>)			
Fisseha Adugna	X	Ayana Lambert	
Carole Ann Barth	X	Peter Myo Khin	X
John Bowers		Shane Pollin	
Brian Downie	X	Rob Richardson	X
Oladipo Famuyiwa		Mike Rosenberg	
Kevin Gunthert		Sebastian Smoot	
Latisha Johnson		Joseph Tahan	X
Bernadine Karns	X	Dan Wilhelm	X
Matthew Koch (attended C)		Eric Wolvovsky	
Jim Zepp (US 29 Central CAC)	X	Ken Jones (US 29 Central CAC)	X

Staff

Warren Barrett, MCDOT
Darcy Buckley, MCDOT
Joana Conklin, MCDOT
Gary Erenrich, MCDOT
Dan Hibbert, MCDOT
Bruce Johnston, MCDOT
Rick Kiegel, RK&K
Erron Ramsey, RK&K
Brittany Rolf, RK&K
Jim Bunch, Sabra Wang
Mike Kinney, Sabra Wang
Michael Weinberger, Foursquare ITP
Rebecca Martin, Foursquare ITP

Members of the Public

Tom Autrey, MNCPPC

1. Welcome

The meeting commenced at 6:30pm.

Michael Weinberger, meeting facilitator from Foursquare ITP, welcomed the CAC members and thanked them for attending the meeting. He began the meeting by reminding members of their role in the process as an advisory body, and that meeting agendas are set per the project scope. He reminded members that the success of the CAC process depends on mutual respect between the members, representatives of County government, and consultants. He encouraged members to contact him or County staff with any questions or concerns. The packet for CAC members includes contact information for project team members.

Member Comment (C): A member commented that she has not been receiving the County emails.

Answer (A): The project team will troubleshoot with her after the meeting to ensure that she receives future emails.

2. Transit Signal Priority

a. Introduction

Jim Bunch introduced himself and Mike Kinney, both from Sabra Wang. Jim explained his experience working on Transit Signal Priority (TSP) in Montgomery County since shortly after the 1990s.

b. What is Transit Signal Priority?

Transit signal priority (TSP) is an operational strategy that facilitates the movement of transit vehicles through signal-controlled intersections. Under certain conditions, a green signal can be extended or a red signal can be shortened to allow transit vehicles to proceed faster through the light.

The use of TSP at intersections along US 29 is *conditional*, meaning that it only occurs if certain conditions are met. Considerations include minimum green times, pedestrian walk times, each transit vehicle's on-time performance, and distance between transit vehicles. For example, TSP cannot override a minimum green time needed for pedestrians to cross an intersection. The conditional TSP system is a modern system with reduced adverse effects on cross traffic in comparison to older TSP systems. The purpose of TSP is to provide the maximum benefit to the BRT with minimum negative impacts to other traffic.

Member Question (Q): What does the word conditional mean in this context?

A: In this context, it means that certain conditions must be met.

Q: Are green lights the only lights that are adjustable?

A: Green time (and the alternate red time) is adjustable. Yellow lights are predetermined.

C: There are only a few places where preemption is used.

A: Yes, and it will never be used for BRT. Preemption is only used for emergency vehicles.

Q: What is the County's level of experience with TSP?

A: A later portion of the presentation will cover this topic.

Transit vehicles are tracked by Global Positioning Satellite (GPS) technology. The priority request generator requests priority to the priority request server, which uses an algorithm to decide whether the bus will receive priority and sends the result to the signal controller at the intersection. If the bus receives priority, the traffic signal either remains green for longer or shortens a red light in accordance with the instructions from the priority request server. If the bus does not receive priority, the traffic signal continues as it would otherwise, with no change to the signal.

Jim explained the difference between schedule management and headway management. Schedule management is usually used at midday and in the late evening, when vehicles come less frequently. Under this scenario, buses are given signal priority if they are, for example, more than five minutes behind schedule. Headway management is used during rush hours, when buses are more frequent. Under this scenario, buses are given signal priority if the gap between them and the previous bus is 1.5 times or higher what it should be.

Q: If signal controllers run automatically, is there any oversight?

A: Yes. In emergencies, automatic systems can be overridden.

c. Benefits of Transit Signal Priority

Jim showed results of TSP systems in various cities. Cities saw bus travel time improvements of 2 to 18 percent, with time typical reductions between 8 and 12 percent. He emphasized that while modern TSP systems improve bus running times, they do not do so at the expense of other vehicles on the road, as has been seen in several different cities.

Q: Which cities using TSP most resemble US 29 in terms of geometry, intersections, street patterns, or demand?

A: Many other cities are more complicated than US 29. The context in US 29 is relatively simple. For example, New York City and Chicago have much more complicated traffic patterns.

Q: What kind of TSP performance do you expect on US 29?

A: At specific intersections, we expect a savings of 5-10 seconds. Analysis of the entire corridor has not been completed yet. Other studies indicate a 22 to 35 percent time savings for the BRT over local bus, but this is not all due to TSP. A portion is also due to off-board fare collection.

C: Although this may provide time savings for buses, it will cause more traffic congestion for cross traffic.

A: The goal is to pick the best 15 intersections to implement TSP. TSP can be turned off during certain time periods or moved to a different intersection if it is causing traffic congestion.

Q: How will the team determine if TSP is causing congestion?

A: Signal operators will monitor performance of the system. Their job is to balance the needs of all traffic, and they will not operate TSP if they think it will cause poor traffic outcomes. TSP can cause a signal to remain green for a maximum of 10-15 additional seconds. There is very little risk involved in TSP in terms of traffic signal operation. The bus driver does not have control of the TSP requests, and bystanders cannot tell that anything out of the ordinary has occurred when TSP is activated.

C: The National Academy's report in 2015 indicated that there is traffic saturation.

Q: Will there be a 30-second delay for cross traffic because of TSP?

A: No.

Jim showed a brief animation illustrating how TSP works.

d. Existing Signal Operations

Mike Kinney (former MCDOT employee in the Transportation Management Center) explained existing traffic signals in Montgomery County. MCDOT maintains all 850 signalized intersections in the county, even though roughly 65 percent of the signals are owned by the Maryland State Highway Administration. In 2013, the County upgraded its signal systems to a modern distributed system, replacing a system that had been installed in 1979. As part of that project, the County installed a high-speed communications network allowing signals to communicate with each other and the transportation management center.

Q: Is 850 the number of intersections that have traffic control, or just the ones that the County controls?

A: The County operates 98 percent of the traffic signals in the county. The State Highway Administration still owns some of the signals, but is in the process of turning them over to the County.

Q: You've said that the bus communicates with the server. What other information is used to control signals? Where does the data come from? Are there traffic cameras?

A: The County has about 225 surveillance cameras, and most of US 29 is visible through these. The County also partners with the University of Maryland to employ other detection programs. Cell phones and commercial vehicles also provide data about traffic flows in real time. Additional data points on buses provide information about boarding information.

TSP was first deployed to Ride On buses in the 1990s. This was a much older system and did not have a great impact. After the signal system modernization, the County performed a TSP pilot program in 2013 at three signals with five buses equipped with the technology, which was much more successful. This form of TSP will be incorporated into the Ride On Extra service debuting on MD 355 in October. He emphasized that the installation of TSP needs to not only account for the needs of buses and cars, but of all road users, including pedestrians.

Q: Does the traffic control center control all signals?

A: Yes. Signals function independently, and would continue functioning even if the central control stopped working. Although signals function independently, signals may be overridden for a variety of reasons. For example, construction at an intersection may necessitate an alternative timing.

Q: Are signals coordinated with each other? For example, the signals near New Hampshire Avenue do not seem to be timed together.

A: Yes, signals are coordinated. However, coordination must consider traffic traveling in all directions, not just one direction. For example, if signals are coordinated so that northbound traffic flows smoothly, this will mean that southbound traffic will be backed up. Signals are coordinated based on the time of day.

Q: Is it true that not all intersections will utilize TSP?

A: Correct, TSP will be used in 15 intersections out of 31 on this corridor.

C: Crosswalk times for pedestrians are too short. It is very difficult to cross if you are elderly, injured, or disabled.

A: TSP will not change the amount of time that pedestrians receive to cross the road. Recently, the Federal Highway Administration reduced the expected speed for crossing the street to 3.5 feet per second from 4 feet per second previously, which allows more time for pedestrians to

cross the road. If there are any intersections where this is an issue, please bring those to the attention of the team.

Q: If there are 30 total intersections along the corridor, why do only 15 receive TSP technology? How do we know that 15 is the right number?

A: The team assumed that some intersections would not work well with TSP and would not meet all the criteria. Fifteen should be sufficient to see an impact in travel times. If the project needs more TSP technology, it will be possible to ask for additional funding to cover this change.

Q: Will TSP be installed on the same number of intersections along the Veirs Mill Road corridor?

A: No, TSP has not been funded for the Veirs Mill Road BRT project.

Q: If the County wants additional TSP, would this be initiated in the budget cycle?

A: Yes.

C: In the annual budget submission to Council, the Department of Transportation requests significant money for road upkeep.

3. Environmental Review Process

Erron Ramsey from RK&K introduced the National Environmental Policy Act (NEPA). It requires all projects that receive funding from a federal agency to go through an environmental impact analysis process. Because this project is funded in part by TIGER grant money from the Federal Transit Administration (FTA), this project must comply with NEPA requirements.

Erron explained the three levels of environmental review under NEPA. A *Categorical Exclusion* is the level involving the least analysis, and is often used when the environmental impact of a project is expected to be insignificant. An *Environmental Assessment* (EA) determines whether there are significant environmental impacts. There are two potential outcomes from an EA: there is either a Finding of No Significant Impact (FONSI) or the activation of the requirement to complete an *Environmental Impact Statement* (EIS). An EIS is the most involved analysis of the environmental impacts of a project.

Because the environmental impacts of the US 29 BRT project are anticipated to be insignificant, the project qualifies for a “D-List” Categorical Exclusion (CE). To prepare the Categorical Exclusion (CE), RK&K is in the process of completing a CE Worksheet, which documents all the environmental resources, including social impacts, environmental impacts, right of way impacts, street trees, wetlands, water, physical impacts like noise and vibration, safety and security, and

traffic impacts. The worksheet also includes the purpose and need of the project, activities involved in the project, and description of the public engagement process.

The CE Worksheet is currently being reviewed by the FTA. MCDOT and FTA have already completed two rounds of review and a field tour and are working on additional edits to the worksheet based on the field tour. The worksheet could be approved as soon as the end of the month. At that point, the NEPA process is completed unless there is a change in the scope of work or the alternatives. Although the CE is not required to be released to the public, FTA and the County have agreed that the document will be released once FTA has made its finding.

C: A member commented that she is concerned that the CACs have not seen a draft of the Categorical Exclusion document and that there has not been any public participation involved in the process.

A: Typically draft documents for a Categorical Exclusion are not released to the public. CEs are not required to be released to the public at all, but MCDOT and FTA have agreed that once FTA has made its determination that the project qualifies for a CE, the documents will be made public.

Q: Will there be a public hearing?

A: No, there is no public hearing requirement for a Categorical Exclusion because the expected impact is very small. Only Environmental Impact Statements are required to have a public hearing.

Erron used Google Earth to show the proposed station placements and the relevant Study Areas. [During this meeting we referred to the Study Area as the Limits of Disturbance (LOD). However, in subsequent conversations with FTA, the Project Team was instructed to refer to it as the Study Area. The LOD is much smaller than the Study Area. The language has been updated in the summary to reflect this.] Within the Study Area, station platforms, amenities, and all other relevant improvements will take place. She showed an overlay of historic properties to demonstrate how they are taken into account in the station siting process. She showed that all construction will take place within existing right-of-way, and explained that Maryland state law requires that any street trees eliminated in State right-of-way as part of the project be replaced, one-for-one. [Trees in County right-of-way will be replaced three-for-one per County regulations.]

She used Google Earth to show the proposed station at Briggs Chaney. The study area is larger than the station area to account for sidewalk improvements, stormwater management, and station facilities. The only impact will be cutting down street trees, which will be replaced one-

for-one per Maryland state law requirements. Maps of each station area will be sent to members so that they can examine each site.

Joana asked whether members would like to receive this by snail mail in addition to email. Members said they would like to receive it by snail mail.

Q: Which project is documented for the NEPA process? What happens if the project changes (for example, moving stations or Metro Extra service)?

A: This project is for BRT service on US 29. It has remained the same since the County took over the project. It entails building stations, purchasing vehicles, and implementing bicycle and pedestrian improvements and TSP. The County does not anticipate further changes in terms of station sites.

Q: Does this include Ride On limited service that will begin in January 2018?

A: No, that service is short-term supplementary service that will be discontinued once BRT service begins.

4. Bicycle Accommodations

Gary Erenrich from MCDOT was introduced to provide a presentation on the County's Bikeshare program. The TIGER grant includes funding for 10 Capital Bikeshare stations. Bikeshare in Montgomery County is used to complement existing bus and Metrorail service, with all services connecting to high-quality bus or Metrorail services. Bikeshare provides short point-to-point trips, averaging 30 or fewer minutes. Bikeshare is typically used to access transit and to commute to work. Riders have the option of a yearlong membership or a \$2.00 single ride payment option.

The Capital Bikeshare system debuted in Montgomery County in 2013. System-wide, it now has 32,000 members and users have made 16,000,000 total trips to date. Capital Bikeshare stations are located or clustered in five areas within the County: Silver Spring/Takoma Park, including two at Silver Spring Transit Center; Bethesda/Friendship Heights; Rockville/Shady Grove/Life Sciences Center, including King Farm; Chevy Chase Lake; and Wheaton. The County has long-term plans to connect these into a more continuous and consistent network. Stations consist of docks where bikes are held, the kiosk, and the bikes. Stations usually have 15 or 19 docks; generally, the goal is to have half of the docks filled with bikes at any given time.

Road safety is a key factor when deciding where to place stations. Station placements are also dependent on sunlight; because they are solar-powered, the stations need at least four hours of direct sunlight a day. They need to be visible and easily accessible, and they cannot block sightlines for drivers or pedestrians. Placement near transit, activity centers, or residential

centers is preferred. Stations are generally a mile and a half apart in Montgomery County, which is higher than the industry standard of about 0.2 miles between stations, or between 28 and 36 stations per square mile. Reaching that industry standard is a long-term goal for Montgomery County. For the US 29 BRT project, all funded stations must be placed within the BRT station Study area.

Q: In Portland, Oregon, dock-based bikeshare systems were found to be inefficient. They have a GPS-based system that is more efficient. Having trucks drive bikes around can negate environmental savings.

A: We do not use a GPS system, and instead use a dock system. There were no bids for GPS-based systems. In the future, more advanced technology may allow for wider use of GPS-based systems.

Bikeshare systems have high operating costs, but capital costs are all funded through other sources. Funding typically comes from grants or developers. The system was designed to provide access to jobs for low-income people. Those receiving federal assistance of some kind can receive a free membership, helmet, and training. About half of the operating costs are covered through the costs of memberships.

Q: What is your goal for increasing bicycle usage?

A: The Bikeshare program makes biking more convenient and accessible. In addition, an initial study by MWCOG is examining whether bikeshare can replace parking spaces needed at employment sites.

C: A member commented that only 1 percent of people use bicycles.

A: The number may be higher than that, around 2 percent [of County residents use bikes as their primary mode for commuting]. Although it is relatively small, the investment in bikeshare is also relatively small. The goal is to provide options and increase quality of life. Even if you personally don't use bikeshare, tourists, children, and other residents may.

C: As we examine last mile issues and feeder bus service issues, there is a gap between where people live and where the feeder lines run. There is an opportunity to encourage regular bike usage rather than usage of the bikeshare program. There should be bike storage at stations so that people can store their personal bikes.

A: BRT buses will include storage racks (inside the buses, rather than on the front bumper) and some stations will include bike racks.

C: A member commented that "Indy Blue" [in Indianapolis, Indiana] is another bikeshare program that addresses last mile concerns.

5. Pedestrian Accommodations

The budget includes \$1 million to cover bicycle and pedestrian accommodations. Stations will need sidewalk connections and bicycle racks. Rick Kiegel, the US 29 BRT Project Manager, asked CAC members to identify any gaps in sidewalks or bike lanes within 1 to 2 miles of stations. If CAC members can help the team identify these gaps, the team will include these gaps in the project or identify the gaps to MCDOT to improve later.

Q: Are sidewalks the only pedestrian improvement included in the project? In the lower part of the corridor, it is difficult to cross intersections. There are pedestrian signal problems and no sidewalk separation from the road.

A: Rick responded that he would be happy to receive specific recommendations about any of those issues.

C: Sidewalk issues may be identified in neighborhood master plans.

6. Concluding Remarks

Q: When will the CACs discuss TSP locations?

A: Possibly in the October meeting, but maybe later. The team does not yet know when the specific TSP intersection deployment decisions will be made.

The next meeting will be held the week of September 11.

The meeting adjourned at 8:45pm.